



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Xiong Zhang et al.

Docket No. 61472-0269224

Serial No.: 09/700,236

Group Art Unit: 1765

Filing Date: May 9, 2001

Examiner: Song, Matthew J.

For: **CRYSTAL GROWTH METHOD FOR GROUP-III NITRIDE AND RELATED COMPOUND SEMICONDUCTORS**

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TC 1700

AMENDMENT

MAIL STOP AMENDMENT - NO FEE

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

This paper is submitted in response to the Office Action mailed March 18, 2003. Examiner Matthew J. Song re-started the reply period for the Office Action on May 9, 2003, because the Rezeghi reference was not fully identified in the March 18 Office Action.

In The Claims

Please amend the claims as follows:

- 1 1. (Currently amended) A crystal growth method for the group-III nitride compound
2 semiconductors, comprising:
3 forming a MOCVD-grown periodic or non-periodic inactive intermediate multi-
4 layered buffer having at least three layers with each layer having a thickness in the range from
5 2 nm to 6 nm on a substrate at a first temperature in which the layers alternate between at least
6 two types of compound semiconductors A and B different from each other in lattice constant,
7 energy band gap, layer thickness, and composition; and
8 forming a MOCVD-grown layer of a group-III nitride compound semiconductor
9 on the formed inactive intermediate multi-layered buffer, wherein said layer of a group-III nitride
10 is formed at a temperature higher than said first temperature.
- 1 2. (Previously amended) A crystal growth method according to claim 1, further
2 comprising doping a n- or p-type in said group-III nitride compound semiconductor.